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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,672	10/22/2003	Yu-Kai Han	17950-US-PA	4910

31561 7590 08/02/2007  
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE  
7 FLOOR-1, NO. 100  
ROOSEVELT ROAD, SECTION 2  
TAIPEI, 100  
TAIWAN

EXAMINER
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TADESSE, YEWEDDAR T

ART UNIT	PAPER NUMBER
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1734

NOTIFICATION DATE	DELIVERY MODE
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08/02/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USA@JCIPGROUP.COM.TW

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/689,672	HAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Yewebdar T. Tadesse	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 4-6, it is unclear whether "the injected gas" is the gas injected by the pump or by the freshening unit. For the purpose of examination, the pump injecting a first gas (in claim 1) and a freshening unit injecting a second gas (in claim 3) is assumed.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-2 and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1 093 167 A2 in view of Bernard et al (US 2002/0022283).

As to claims 1 and 8-12, EP'283 discloses (see Fig s 1A-1B &17, paragraphs 173 and 179-180) an inkjet printing device for manufacturing an organic el device, comprising: a chamber (415) which has a space, wherein a basement for supporting a substrate of the organic el device provided in the space; an inkjet unit (107), which has a print head including a plurality of print holes, the print head is considered to being set inside the chamber and used to inject ink toward the substrate; and a pressure adjusting unit (evacuation pump, see paragraph 180) which connects to the space of steadying a pressure of the space within a specific value. Additionally, EP'167 teaches (see paragraph 180) a pressure-adjusting unit (pump) to perform a predetermined work and removal of oxygen and moisture from the atmosphere (see paragraph 117), and an ink jet-processing chamber operated in an inert gas (argon or helium) and nitrogen (1<sup>st</sup> injected gas) atmosphere (see paragraphs 173 and 179). However, a pressure-adjusting unit comprising a controller controlling the pump to inject gas to or to exhaust gas from the chamber and the amount of the injected gas or exhaust gas is not taught in EP'167. Yet, Bernard et al discloses (see Fig 1) a controller (6) controlling a pump (2, 3) to inject gas to or to exhaust gas from the chamber (1) and the amount of injected gas or the exhausted gas. It would have been obvious to one of ordinary skill in the art

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at the time the invention was made to include a controller controlling the pump to inject gas to or to exhaust gas from the chamber and the amount of the injected gas or exhaust gas in EP'167 to simplify the deposition process in fully automated environment and increase productivity.

With respect to claim 2, in EP'167 the pressure of the space within the chamber is capable of being set between 0.5-1.5 atmospheres.

4. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1 093 167 A2 in view of Bernard et al (US 2002/0022283) as applied to claim 1 and further in view of Yamane et al (US 5,059,266).

EP'167 discloses (see paragraphs 173 and 179) an ink jet-processing chamber operated in an inert gas (argon or helium) and nitrogen atmosphere, however in EP'167 a freshening unit injecting second gas into the ink jet chamber is not shown. Bernard et al discloses (see Fig 1) a process chamber (1) in communication with gas injecting means (14, 15) capable of injection inert gas and nitrogen. Yamane et al discloses (see Fig 18 and column 12, lines 52-68) a freshening unit (gas substituting mechanism 334) injecting gas into the ink jet chamber. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a freshening unit in EP'167 to create the desired gas environment to prevent the EL material from oxidizing and deteriorating as taught by EP'167.

***Response to Arguments***

5. Applicant's arguments filed 05/03/2007 have been fully considered but they are not persuasive. Applicants argue that Yamasaki (EP'167) or any of the other cited references alone or in combination does not disclose applicants' claims, specifically the limitation that "the controller controlling the pump to inject gas to or to exhaust gas from the chamber and the amount of the injected gas or the exhaust gas. Examiner respectfully disagrees because Bernard (as explained in the rejection) above discloses (see Fig 1 and paragraph 65) a controller (6) controlling pumps (2, 3) to inject gas to *the primary pump (3) using injectors 15* or to exhaust gas from the chamber (1) and the amount of injected gas or the exhausted gas.

Additionally, It is noted that Yamane et al discloses (see Fig 18, column 12, lines 52-68) a chamber provided with a pressure adjusting unit (pump 334) for vacuumizing inside of the chamber (333) or for substituting inert gas within the chamber in the ink jet system. Yamane et al also discloses oxygen removed from the chamber (see column 12, lines 52-68) to prevent photo-polymerization of the coating material. It would have been also obvious to one of ordinary skill in the art at the time the invention was made to include a pressure adjusting unit shown by Yamane et al in EP to attain the desired environment within the chamber preventing polymerization of the coating material as taught by Yamane e al. As to the controller controlling the pressure-adjusting unit, Bernard teaches a controller controlling a pump connected to a chamber. It would have been also obvious to one of ordinary skill in the art at the time the invention was made

to include a controller controlling the pump to facilitate the deposition process by automatically regulating the environment within the chamber.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yewebdar T. Tadesse whose telephone number is (571) 272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tucker Phillip can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



YTT